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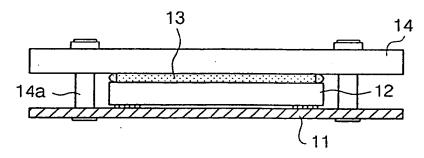
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(54) Thermally conductive polymer sheet

(57) A thermally conductive polymer sheet includes a polymer matrix and graphitized carbon fibers as a thermally conductive filler. The graphitized carbon fibers are formed by spinning, infusibilization, carbonization, pulverized mesophase pitch before graphitizing the mesophase pitch. The graphitized carbon fibers have a coating layer of ferromagnetic material on their surface. The application of magnetic field to the coating layer allows

the fibers to be oriented to be perpendicular to the sheet. Preferably, by X-ray diffractometry, the graphitized carbon fibers have an interplanar spacing (d002) of graphite planes of less than 0.3370 nm and a ratio (P101/P100) of diffraction peak (101) to diffraction peak (100) of at least 1.15. The ferromagnetic material is preferably at least one of a metal, an alloy, or a compound selected from the group consisting of nickel, cobalt and iron.

Fig.1



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Fig.1

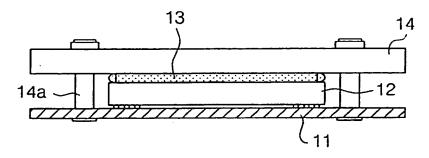


Fig.2

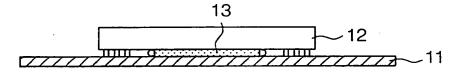


Fig.3

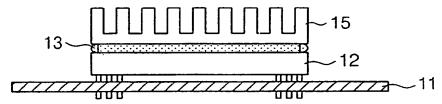


Fig.4

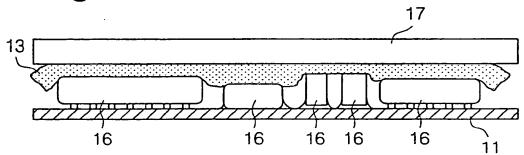


Fig.5A

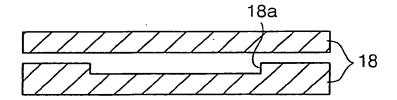


Fig.5B

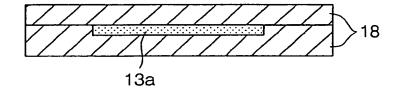


Fig.5C

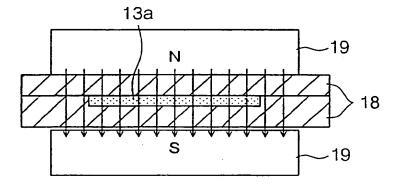


Fig.6

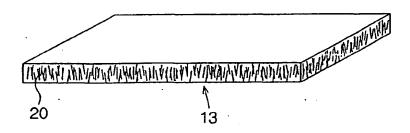


Fig.7

